MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

MASTER OF CS (SOFTWARE ENGINEERING AND SOFTWARE ARCHITECTURE)

TRIMESTER 1631

THI 7011 – SOFTWARE ENGINEERING APPROACH TO HUMAN COMPUTER INTERACTION

(All sections / Groups)

9 June 2017
8:00 p.m. – 10:00 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 2 pages with 4 Questions only.

2. Answer all FOUR questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please write all your answers in the Answer Booklet provided.

Question 1 (10 marks)

a. **Mr. Adam distributed 500 questionnaires to collect demographic data and users' opinions on the existing library system. Then, he was informed that three of the questions were very confusing and participants were annoyed. Explain how you would advise Mr. Adam that this error could have been avoided.**

(2 marks)

b. **You are developing a new software system to support a small bookstore in Malaysia. There is a system running already with which the users are reasonably happy, but it is looking dated and need upgrading. You should assume that you are at the beginning of product development and that you have sufficient time and resources to use any data gathering technique. Propose THREE data gathering techniques that would be appropriate to use and justify your reason.**

(3 marks)

c. **Consider the goal of buying a book. This goal can be decomposed into subtasks: locate book, add book to shopping cart, enter payment details, enter shipping address and confirm order. If the user is a registered user, certain subtasks (such as entering payment and shipping address details) may not be performed in this case. Construct the hierarchical task analysis graphically and include all plans in your answer.**

(5 marks)

Question 2 (10 marks)

a. **A lot of people will press the button at least twice when they are waiting for an elevator. When asked why, a common reason given is that they think it will make the elevator arrives faster. Elaborate why people use incorrect mental model in this context.**

(2 marks)

b. **Describe briefly the four aspects of Jordan's pleasure model and illustrate how each aspect is useful for designing a digital camera.**

(8 marks)

Continued…

Question 3 (10 marks)

a. **You developed a futuristic scenario for the one-stop car shop. The scenario breaks down into five main steps:**
   - **The user arrives at the one-stop car shop.**
   - **The user is directed into an empty booth.**
   - **The user sits down in the racing car seat and the display comes alive.**
   - **The user can view reports.**
   - **The user can take a virtual reality drive in their chosen car.**

   Develop a storyboard using this scenario.

(5 marks)

b. **Ms. Brenda's company was awarded a project to develop a new mobile learning system. However, she faced dilemma because her development team would take a long time to build a prototype that looks much more like the final thing and the clients requested to see the system in first month. Find TWO advantages of using low-fidelity prototype in order to counter her current issues.**

(2 marks)

c. **Recommend THREE common ways people repair breakdowns in conversations when using an email system.**

(3 marks)

Question 4 (10 marks)

a. **ABC company is developing a new car seat to monitor if a driver starts to fall asleep when driving. The new car seat provides a wake-up call using olfactory and haptic feedback. Identify TWO appropriate evaluation settings to evaluate this new car seat.**

(2 marks)

b. **Madam Cindy were assigned to conduct an observation in the field. Since this is her first time experience, knowing when to stop observing can be difficult for Madam Cindy. Propose TWO indications when to stop observing.**

(2 marks)

c. **Compare the advantages and disadvantages of using THREE different experimental designs in an experiment.**

(6 marks)

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